Amendments to the Specification:

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2 Please replace the paragraph beginning at page 8, line 7, with 3 the following rewritten paragraph:

Fig. 1 shows the straight tube portion 52A of the membrane and Fig. 2 shows a section view through the membrane and one of the vertical measurement instruments. In a constant thickness version of the membrane, the thickness of 52A in Fig. 1 is thicker than the cross section dimension of the displacement sensor, which requires its minimum thickness to be larger than that necessary to produce the pressure barrier alone. The thickness may vary in other embodiments, such as that produced by the fabrication mold assembly, discussed below in the manufacturing method portion of this application. The membrane section shown in Fig.s 1 and 2 show a cavity 52B that is molded into the membrane material, such as silicone or latex rubber, or other polymeric materials, and this cavity receives the LVDT (linear variable differential transformer) type displacement transducer 76A, 76B, and 76C. The cavity 52B is tubular in nature, but it is not centered within the wall thickness of the membrane. By offsetting the cavity toward the outside surface of the membrane, the large diameter portions of the cavity are actually open to the outside surface of the membrane by the slit 52C in Fig. 1.

Please replace the paragraph beginning at page 14, line 19, with the following rewritten paragraph:

For applications only requiring vertical (i.e. axial) measurements, features 214, 216, and 218 are unnecessary. For a single circumferential measurement, and for applications in which radial measurements do not occupy the same horizontal planes occupied by the vertical cavity components 210A and 210C, a support 216 having a cavity 216A formed by a forming wire 218 such as used to form the cavity 86, and a support for the wire 216, 216A (also shown in another view in Fig. 10) are used.